

**REMARKS**

Claims 1-15 and 17-44 are pending. Claims 21-44 have been canceled without prejudice or disclaimer and Applicants expressly reserve the right to pursue claims of similar scope in a related later-filed, co-pending application. Applicants respectfully request examination and reconsideration of the pending claims.

**Claim Rejections Under 35 U.S.C. § 103(a)**

Claims 1-3, 13-15, 17 and 19-20 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 5,975,893 to Chishti et al. (hereinafter "Chishti") in view of Yamani, S.M. and Farag, A.A., "A System for Human Jaw Modeling Using Intra-Oral Images," Proc. Of the 20<sup>th</sup> Annual Conf. of the IEEE Engineering in Medicine and Biology Society, Vol. 2, pp. 563-566, November 1998 (hereinafter "Yamani"). Applicants respectfully traverse this rejection.

Chishti does not describe, teach or suggest several of the limitations of pending claim 1. For example, Chishti does not describe "receiving as input a digital data set of meshes representing teeth." In fact, Chishti does not use the word "mesh" or "meshes" anywhere in his specification. Similarly, Chishti does not describe "selecting a curved coordinate system with mappings to and from a 3D space" or "generating a function in the curved coordinate system to represent each tooth." Yamani also does not teach or suggest any of these limitations. Therefore, even if the combination suggested by the Office Action were made, the invention of claim 1 and the dependent claims therefrom would not be achieved. Applicants further submit that there was no suggestion or motivation to combine Chishti and Yamani as suggested by the Office Action. Applicants thus request withdrawal of the rejection of claims 1-3, 13-15, 17 and 19-20 under 35 U.S.C. § 103(a).

Claims 4-8 and 18 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Chishti in view of Yamani and further in view of an Official Notice by the Examiner. Claims 9-12 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Chishti in view of Yamani and further in view of Bourke, Paul, "Coordinate System

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Appl. No. 09/888,261  
Amdt. dated December 21, 2005  
Reply to Office Action of October 20, 2005

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Transformation,” June 1996 (hereinafter “Bourke”). Applicants respectfully traverse these rejections.

For the reasons set forth above, Applicants submit that neither Chishti nor Yamani nor the combination thereof achieves the invention of claim 1. Therefore, Applicants respectfully submit that dependent claims 2-15 and 17-20, all of which depend variously from claim 1, are in condition for allowance and thus request withdrawal of the rejections of claims 4-8, 18 and 9-12 under 35 U.S.C. § 103(a).

### CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

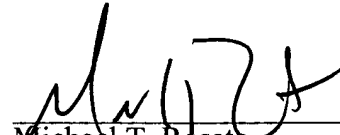
If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,

Date:

12/21/05

By:

  
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